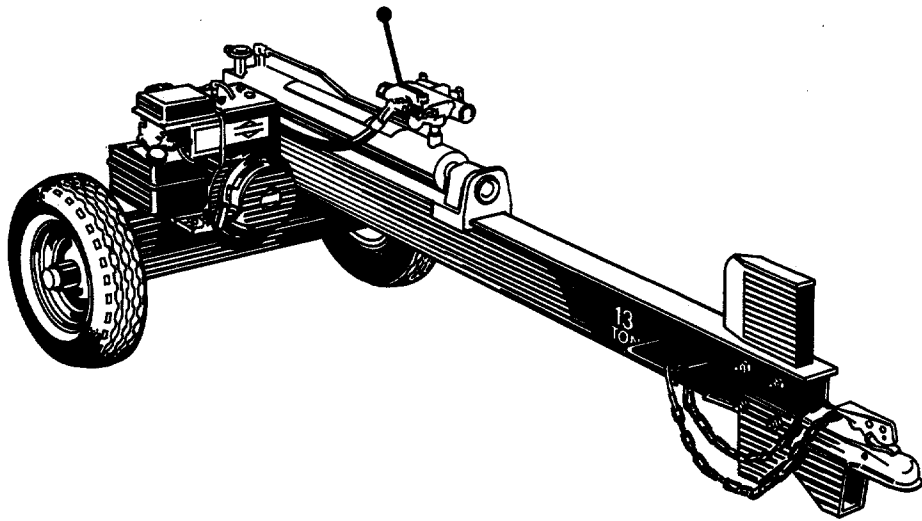


\$1.00

# OWNER'S GUIDE

ASSEMBLY • OPERATION • MAINTENANCE • PARTS



**13 TON  
HORIZONTAL  
LOG SPLITTER**


**Model Number  
241-610-000**

**Important: Read Safety Rules and Instructions Carefully**

# IMPORTANT

## RULES FOR SAFE OPERATION



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR LOG SPLITTER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL— HEED IT'S WARNING.



**DANGER**

Your log splitter was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.



### TRAINING

1. Before operating this splitter, read and understand this manual completely. Become familiar with it for your own safety. To fail to do so may cause serious injury. Do not allow anyone to operate your splitter who has not read this manual. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Never use your splitter for any other purpose than splitting wood. It is designed for this use and any other use may cause an injury. Your log splitter is a precision piece of power equipment, not a playtoy. Therefore, exercise extreme caution at all times.
3. Never allow children to operate your log splitter. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your log splitter.
4. Only the operator is to be near your log splitter during use. Keep all others, including pets and children, a minimum of 20 feet away from your work zone. Flying wood can be hazardous. If a helper is assisting in loading logs, never activate the control until the helper is clear of the area. More accidents occur when more than one person operates the log splitter than at any other time.
5. No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions. A clear mind is essential for safety. Never allow a person who is tired or otherwise not alert to use your splitter.
8. Only operate your splitter on level ground and not on the side of a hill. It could tip, or rolling logs or poor footing could cause an accident. Operating the splitter on level ground also prevents the spillage of gasoline from the fuel tank.
9. Never attempt to move the log splitter over hilly or uneven terrain without a tow vehicle or adequate help.
10. Always block the wheels to prevent movement of log splitter while in operation.
11. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, when the engine is running, or while the engine is still hot. Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
12. Both ends of each log must be cut as square as possible to help prevent the log from riding out of the splitter during operation.



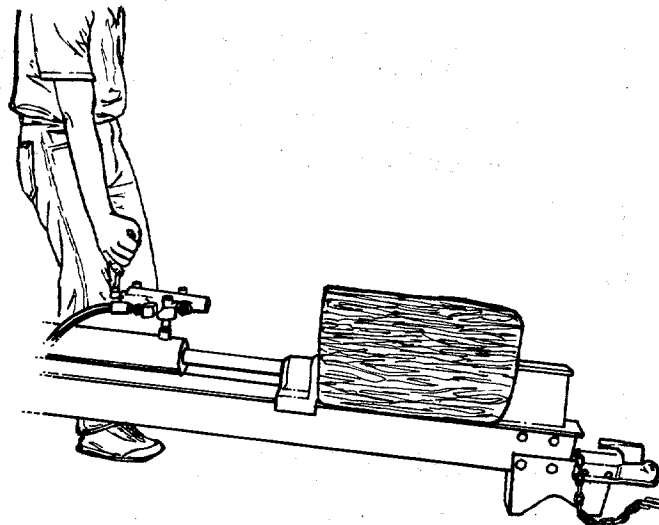
### OPERATION

1. Stand behind the ram when operating. See illustration.



### PREPARATION

1. Never wear loose clothing or jewelry that can be caught by moving parts of your log splitter and pull you into it. Keep clothing away from all moving parts of your log splitter.
2. Wear proper head gear to keep hair away from moving parts. Always wear protective hearing devices as needed.
3. Always wear safety shoes. A dropped log can seriously injure your foot.
4. Always wear safety glasses or goggles while operating your splitter. A piece of splitting log could fly off and hit your eyes.
5. If you wear gloves, be sure they are tight fitting without loose cuffs or draw strings.
6. Use your log splitter in daylight, or under good artificial light.
7. Never operate your splitter on slippery, wet, muddy or icy surfaces. Safe footing is essential in preventing accidents. Never operate your splitter while attached to a towing vehicle.



2. Know how to stop the unit and disengage the controls.
3. Never place hands or feet between log and splitting wedge or between log and ram during forward or reverse stroke. To do so may result in crushed or amputated fingers or toes, or worse, you may lose an arm or foot.
4. Do not straddle the splitter when using it. A slip in any position could result in a serious injury.
5. Do not step over your log splitter when the engine is running. You may trip or accidentally activate the ram if you step over. If you need to get to the other side, walk around.
6. Never try to split two logs on top of each other. One may fly out and injure you.
7. When loading the log splitter, place your hands on the side of the log, not at the ends. Never attempt to load your splitter while the ram is in motion. You may get caught by the ram and injured.
8. Only use your hand to operate the ram or control lever. Never use your foot or a rope or any other extension device. This could result in your ability to stop your splitter quickly enough and cause injury.
9. Always keep fingers away from any cracks that open in the log during splitting operation. They can quickly close and pinch or amputate your fingers.
10. Never attempt to split woods across the grain. Some types of wood may burst or fly out of your splitter and result in injury to you or a bystander.
11. For logs that are not cut square, the longest portion of the log should be rotated down and the most square end placed against the ram.
12. Keep your work area clean. Immediately remove split wood around your splitter so that you do not stumble over it.
13. Never move the log splitter while the engine is running.
14. Never leave your log splitter unattended with the engine running. Shut off the engine if you are leaving your splitter, even for a short period of time. Someone could accidentally activate the ram and be injured.
15. Do not run engine in an enclosed area. Exhaust gases contain carbon monoxide. This odorless gas can be deadly when inhaled.
16. Be careful not to touch the muffler after the engine has been running as it is HOT.
17. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
18. When cleaning, repairing or inspecting, make certain all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
3. Replace all damaged or worn parts such as hydraulic hoses and fittings immediately with manufacturer approved replacement parts.
4. Do not change the engine governor settings or overspeed the engine. This increases the hazard of personal injury. The maximum engine speed is preset by the manufacturer and is within safety limits.
5. Do not alter your splitter in any manner such as attaching a rope or extension to the control lever or adding to the width or height of the wedge. Such alterations may cause your splitter to be unsafe.
6. Perform all recommended maintenance procedures before you use your splitter.
7. Do not service or repair your log splitter without disconnecting the spark plug wire.
8. Never store the equipment with gasoline in the tank inside of a building where ignition sources are present, such as hot water and space heaters, clothes dryers and the like. Allow the engine to cool before storing in any enclosure.
9. Always store gasoline in an approved, tightly sealed container. Store the container in a cool, dry place. Do not store in a building where ignition sources are present.
10. To reduce fire hazard, keep engine free of grass, leaves, wood chips, and excessive grease and oil.
11. The hydraulic system of your log splitter requires careful inspection, along with the mechanical parts. Be sure to replace frayed, kinked, or otherwise damaged hydraulic components.
12. Fluid escaping from a very small hole can be almost invisible. Do not check for leaks with your hand. Escaping fluid under pressure can have sufficient force to penetrate skin, causing serious personal injury. Leaks can be located by passing a piece of cardboard or wood over the suspected leak and looking for discoloration.
13. Should it become necessary to loosen or remove any hydraulic fitting or line, be sure to relieve all pressure by shutting off the engine and moving the control handle back and forth several times.
14. Do not remove the cap from the hydraulic tank or reservoir while your log splitter is running. Hot oil under pressure could cause injury.
15. The pressure relief valve on your splitter is preset at the factory. Do not adjust the valve. Only a qualified service technician should perform this adjustment.
16. Completely drain fuel tank prior to storage. This guards against accumulation of fuel fumes which could result in a fire hazard.
17. Never store log splitter outside without a waterproof cover. Rain will cause rust on the inside of the cylinder.



#### **MAINTENANCE**

1. Do not operate your splitter in poor mechanical condition or when in need of repair.
2. Periodically check that all nuts, bolts, screws, hose clamps and hydraulic fittings are tight to be sure equipment is in safe working condition. Where appropriate, check all safety guards and shields to be sure they are in the proper position. Never operate your splitter with safety guards, shields or other protective features removed. These safety devices are for your protection.



#### **TOWING**

1. This unit should not be towed on any street, highway or public road. Any licensing needed to comply with the existing federal, local or state vehicle requirements is the sole responsibility of the purchaser.
2. Before towing, be certain the log splitter is correctly and securely attached to the towing vehicle, and the safety chains are in place. Leave slack in chains for turning allowance.
3. Do not allow anyone to sit or ride on your splitter. They can easily fall off and be seriously injured.

NOTE: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer.

# ASSEMBLY

**IMPORTANT:** This unit has been shipped without gasoline or oil in the engine. After assembly, refer to separate engine manual for proper fuel and engine oil information.

## UNPACKING

Remove the log splitter and loose parts from the carton by cutting the corners of the carton. Make certain all parts and literature have been removed from the carton before the carton is discarded.

### Loose Parts in Carton:

- (1) Axle Assembly
- (1) Tow Hitch Assembly
- (1) Beam Stand
- (1) Tow Hitch Chain
- (1) Hardware Pack

### ← Contents of Hardware Pack (See Figure 1):

- A (4) Hex Bolts 3/8-24 x 1" Long (Fine Thread)
- B (7) Lock Washers 3/8" I.D.
- C (4) Hex Nuts 3/8-24 (Fine) Thread
- D (2) Spacers 3/4" I.D. x 1-1/2" Long
- E (2) Castle Nuts 3/4-16 Thread
- F (2) Cotter Pins
- G (1) Hex Bolt 3/8-16 x 1-1/2" Long (Coarse Thread)
- H (1) Flat Washers 3/8" I.D.
- I (1) Spacer 3/8" I.D. x 1/4" Long
- J (3) Hex Nuts 3/8-16 (Coarse) Thread
- K (2) Hex Bolts 3/8-16 x 3-1/4" Long (Coarse Thread)
- L (2) Spacers 3/8" I.D. x 2" Long
- (1) Automotive Grease (not shown)

### Tools Required for Assembly

- (2) 9/16" Wrenches\*
  - (1) Flat Blade Screwdriver
  - (2) Adjustable Wrenches
  - (1) Pair of Pliers
  - (1) Soft Hammer or Mallet
- \*Adjustable Wrenches may be used.

### Other Materials Required for Assembly

- Engine Oil
- Unleaded Gasoline
- Approximately 3 Gallons of Dexron II Automatic Transmission Fluid

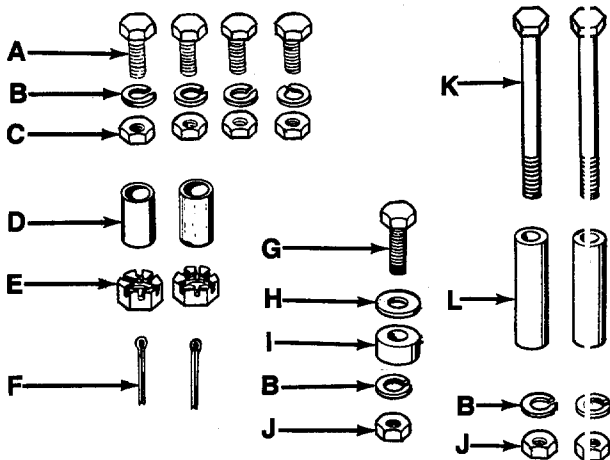


FIGURE 1.

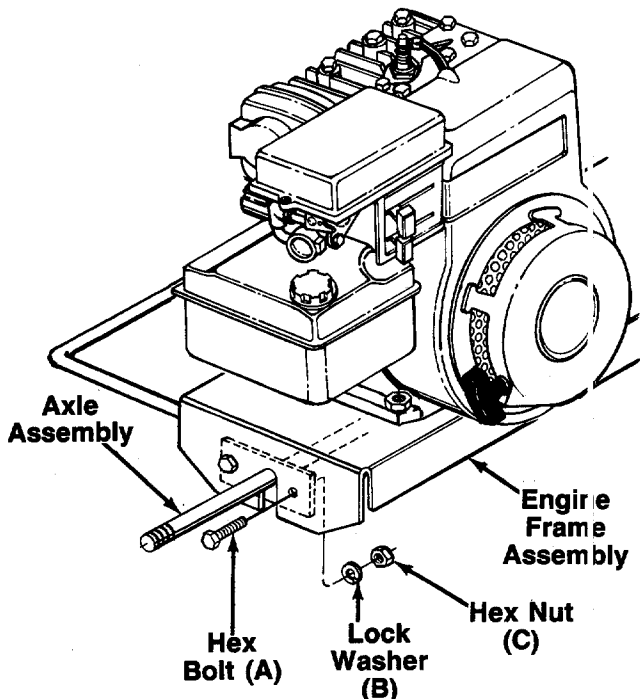


FIGURE 2.

### ATTACHING THE AXLE

1. Block up the engine frame assembly.
- ← 2. Place the axle assembly in position inside the engine frame assembly as shown in figure 2.
3. Secure with 1" long fine thread hex bolts (A), four lock washers (B) and fine thread hex nuts (C), using two 9/16" wrenches. Tighten securely.
4. Remove the protective plastic covers from the ends of the axles.

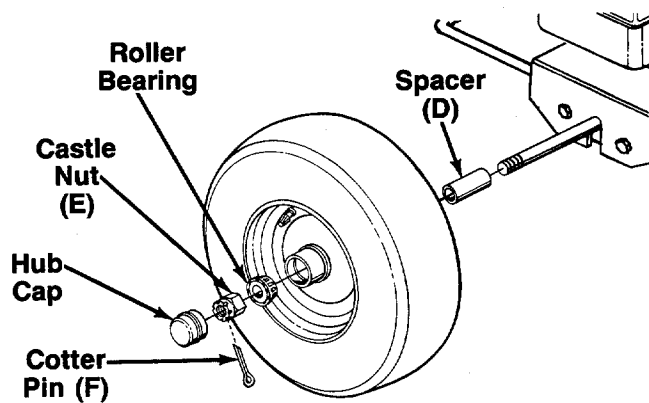


FIGURE 3.

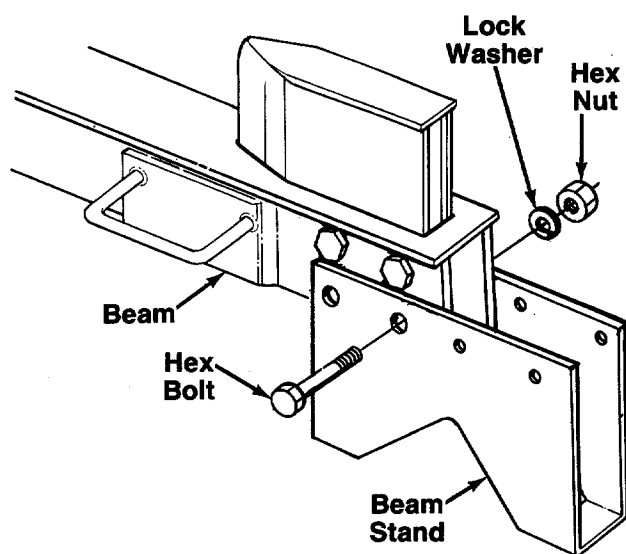


FIGURE 4.

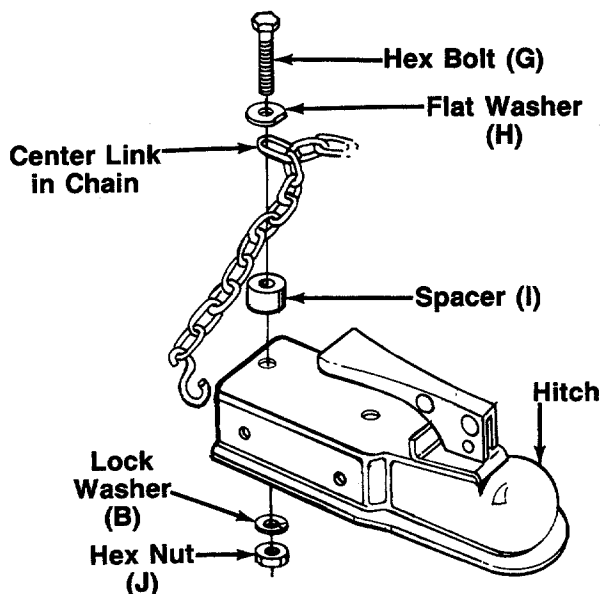


FIGURE 5.

## INSTALLATION OF WHEELS

1. Using a flat blade screwdriver, pry off the hub caps and dust covers which are attached to the wheels. Discard the dust covers (used for shipping only). Remove one tapered roller bearing from inside each wheel.
2. Pack the roller bearings with the automotive grease provided. (Do not grease inside the hub cap.)
3. Place one spacer (D) on each axle, then one wheel and a tapered roller bearing. See figure 3.
4. Thread hex castle nuts (E) on axle. Using an adjustable wrench, tighten castle nuts until snug, then back off approximately 1/3 turn, or until one of the slots on the castle nut lines up with hole in axle.
5. Insert cotter pins (F) through slot in castle nuts and holes in axle. Secure by bending the ends of the cotter pins in opposite directions, using a pair of pliers.

**NOTE:** Make certain tapered roller bearings were packed with grease. Save any extra grease for greasing the beam under "Initial Preparation" on page 6.

6. Place hub cap in position on wheel, and tap on with a soft hammer or mallet.

## ASSEMBLING THE BEAM STAND

The wedge is already assembled to the log splitter, and is held in place with four 3-1/2" long hex bolts, lock washers and hex nuts. The top two bolts and nuts are tightened securely. The bottom two bolts and nuts have been assembled loosely.

1. Remove the two bottom bolts, lock washers and hex nuts from the beam and wedge.
2. Place the beam stand in position as shown in figure 4. Secure to beam and wedge with hardware just removed, using the larger holes in beam stand. Tighten securely.

## INSTALLING THE TOW HITCH

1. Attach the chain to the tow hitch as follows.
  - a. Place flat washer (H) on hex bolt (G).
  - b. Find the center link of the tow hitch chain. Place hex bolt through the center link on the chain.
  - c. Place spacer (I) on hex bolt.
  - d. Insert hex bolt through hole in the top of tow hitch as shown in figure 5.
  - e. Secure with one lock washer (B) and hex nut (J). Tighten using two 9/16" wrenches.

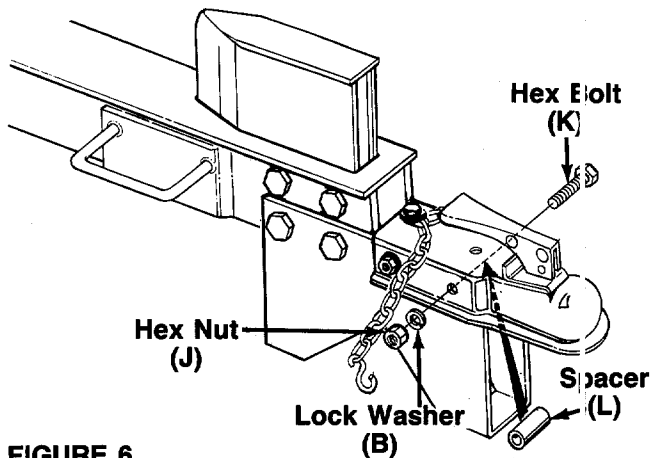


FIGURE 6.

2. Place the hitch in position on the beam stand as shown in figure 6. Place spacer (L) inside the beam stand. Insert hex bolt (K) through hitch, beam stand and spacer. Secure with lock washer (B) and hex nut (J). Assemble second bolt in same manner. Tighten both bolts and nuts securely.

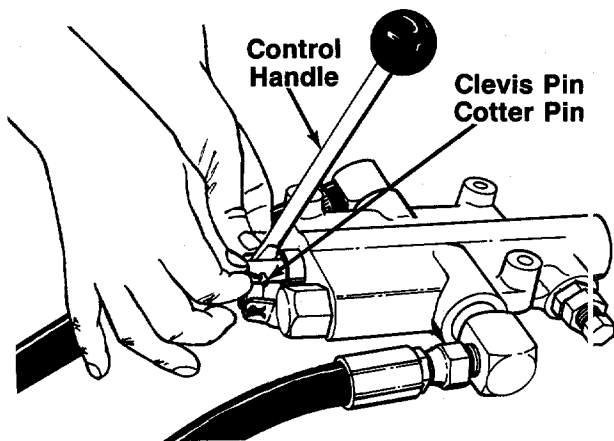


FIGURE 7.

### ATTACHING THE CONTROL HANDLE

1. The bottom of the control handle is already attached to the valve with a cotter pin. Remove the second cotter pin and clevis pin which are attached to the valve only.
2. Place the handle in position, and secure using the clevis pin and cotter pin. Secure by bending the ends of the cotter pin in opposite directions. See figure 7.

### FINAL ASSEMBLY

1. Make certain all nuts, bolts and hose clamps are tightened securely.
2. Before operating the log splitter, make certain to follow the "Initial Preparation" instructions in the Operation Section.

## OPERATION

### INITIAL PREPARATION

1. Place the log splitter on a firm, level surface.
2. **Service engine with gasoline and oil** as instructed in the separate engine manual packed with your log splitter.
3. Lubricate the area of the beam on which the ram will slide with automotive grease.
4. Fill the reservoir tank (beam) and purge the air from the system as follows.
  - a. With the log splitter on a level surface, remove the cap from the breather tube. See figure 8. Remove the fluid check plug from the end plate.
  - b. Fill the reservoir tank with Dexron II automatic transmission fluid until fluid starts to come out of the hole. Replace the check plug.
  - c. Start the engine. Slowly move the control handle forward and backward until the ram moves smoothly in both directions.
  - d. Stop the engine. Remove the fluid check plug. Add fluid as necessary until fluid starts to come out of the hole. Replace the check plug.

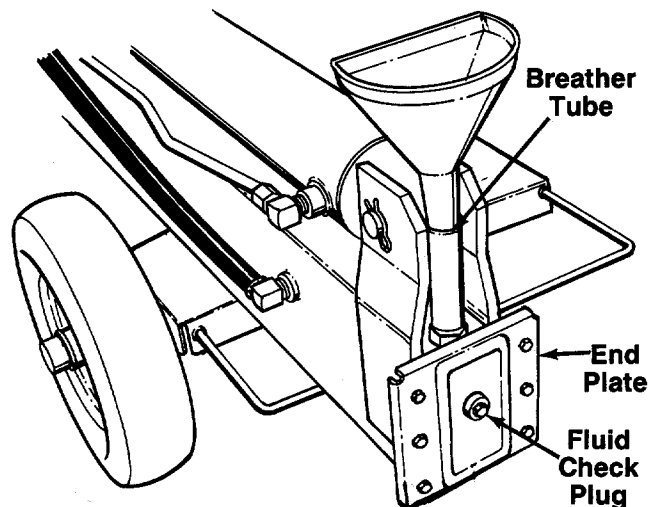


FIGURE 8.

- e. Repeat steps "c" and "d" until the ram operates smoothly and the fluid level is correct. Then replace the breather cap securely.

Total capacity of the system is approximately 3 gallons.



**WARNING:** Do not operate the log splitter without the proper amount of transmission fluid in the reservoir tank.

**NOTE:** Be certain to purge the air from the hydraulic system as instructed above after any repair work is performed on the pump, valve or cylinder, if a hose is removed for any reason or when adding fluid to the reservoir.

## BEFORE STARTING

Before each use, check the following:

1. Place the log splitter on a firm, level surface.
2. Remove the fluid check plug. See figure 8. If fluid starts to come out of the hole, fluid level is correct. If it does not, fill reservoir as instructed in step 4 of the previous section.
3. Lubricate the area of the beam on which the ram will slide with automotive grease.
4. Fill gasoline tank as instructed in the separate engine manual.
5. Attach spark plug wire to spark plug.

## TO START ENGINE

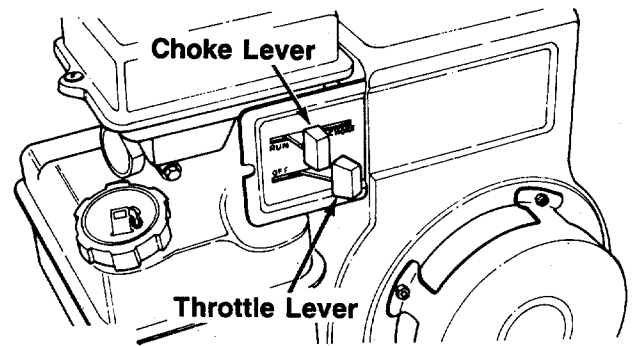
1. Place throttle control lever on the engine in FAST position. See figure 9.
2. Place choke lever in CHOKE position (a warm engine may not require choking).
3. Grasp starter handle and pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly.

**NOTE:** When restarting a warm engine, be careful to keep away from muffler and other heated surfaces on the engine.

4. Pull rope with a rapid, continuous, full arm stroke. Keep a firm grip on the starter handle. Let the rope rewind slowly. Do not let starter handle snap back against starter.
5. Repeat preceding instructions 3 and 4 until engine fires. When engine starts, move choke lever halfway between CHOKE and RUN.
6. Move throttle control lever to IDLE position for a few minutes warm-up. Gradually move choke lever to RUN position as engine warms up.

**NOTE:** In order to idle smoothly, a new engine may require 3 to 5 minutes running above slow idle speed. Idle speed has been adjusted to be correct after this break-in period.

7. If weather is cold, cycle the ram 6 to 8 times to circulate the hydraulic fluid, which will warm and thin the fluid.



**FIGURE 9.**

## TO STOP ENGINE

1. Move throttle control lever to OFF position.
2. Disconnect spark plug wire from spark plug to prevent accidental starting while equipment is unattended.

## USING THE LOG SPLITTER

Use the log splitter only on a level, hard surface. Never stand next to the ram when operating the log splitter. Always stand behind the ram. See figure 10. Never attempt to cut a log in half sideways. Always split the log lengthwise. Maximum length of log to be split is 25".

The control handle has three positions:

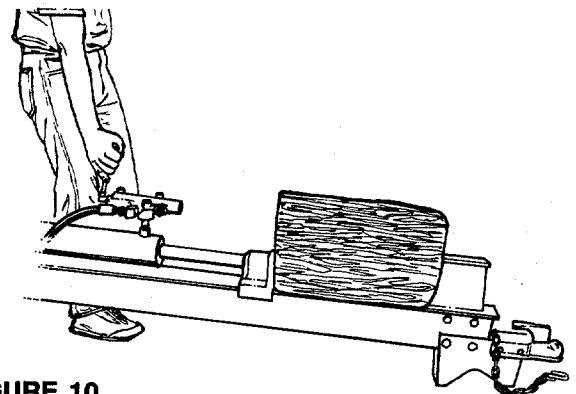
**FORWARD** (Push the control handle forward)—

Ram moves toward the splitting wedge. Control handle will return to neutral position as soon as handle is released.

**NEUTRAL** (Middle position)—Ram stops in place.

**REVERSE** (Push the control handle to the rear)—

Ram returns. The control handle will lock in the reverse position, and will return to neutral automatically when the reverse stroke is complete.



**FIGURE 10.**

## TO OPERATE LOG SPLITTER:

1. Set throttle at maximum speed.
2. Place log on beam. Hold in place with hand.
3. Slowly move control handle forward until the ram rests against the log. Release the control handle (Neutral).

4. Remove your hand from the log and step behind the ram. See figure 10.
5. Move control handle forward until log is split.
6. Move the control handle to the rear to return the ram.



**WARNING:** If the fluid becomes excessively hot at any time during operation, stop the unit and allow the fluid to cool down. Maximum performance will not be obtained from your log splitter if the fluid is too hot. Use extreme caution as contacting hot fluid could result in serious personal injury.

### TO TRANSPORT LOG SPLITTER

Attach the hitch to a towing vehicle, making certain to latch securely. Attach the safety chains to the towing vehicle.

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## MAINTENANCE

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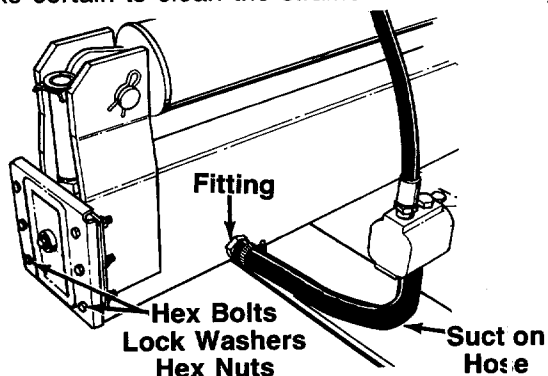


**WARNING:** Always stop the engine and disconnect the spark plug wire before performing any maintenance or adjustments.

### RESERVOIR FLUID

Check the hydraulic fluid level in the log splitter reservoir tank before each use. Refer to "Before Starting" under Operation Section.

Change the hydraulic fluid in the reservoir every 100 hours of operation. Remove the six hex bolts, lock washers and hex nuts which hold the end plate to the beam. See figure 11. Remove the plate, and drain the fluid into a suitable container. Refill using only Dexron II automatic transmission fluid, as instructed in the "Initial Preparation" section of this manual, page 5. Also, make certain to clean the strainer tube assembly.



**FIGURE 11.**

**NOTE:** Drain the fluid and flush the reservoir tank and hoses with kerosene whenever any repair work is performed on the tank, hydraulic pump or valve. Contaminants in the fluid will damage the hydraulic components. (Should be performed by an authorized service dealer.)



**WARNING:** Use extreme caution when working with kerosene, as it is an extremely flammable fluid.

### STRAINER TUBE ASSEMBLY

1. Loosen the hose clamp on the suction hose at the beam. See figure 11. Disconnect the hose from the beam.
2. Using an adjustable wrench, remove the fitting from the beam.
3. Reach inside the end of the beam (end plate was already removed), and pull out the strainer tube assembly. See reference number 43 on page 12.
4. Clean the strainer tube assembly with kerosene. Reassemble in reverse order.
5. Reassemble the end plate. Refill reservoir tank with Dexron II automatic transmission fluid as instructed under "Initial Preparation" in Operation Section.

### BEAM AND SPLITTING WEDGE

Lubricate the beam where it contacts the ram with grease before each use to obtain years of service.

### HOSE CLAMPS

Check the hose clamps on the suction hose (attached to bottom of the pump) for proper tightness before each use. Check the hose clamps on the return hose (between beam and cylinder) at least once a season.

### ENGINE

**Refer to the separate engine manual for all engine maintenance instructions.**

Maintain **engine oil** as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service **air cleaner** every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner refer to the separate engine manual packed with your unit.

The **spark plug** should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each season; check engine manual for correct plug type and gap specification.

**Clean the engine** regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all dirt and combustible debris from muffler area.

### FLEXIBLE PUMP COUPLER

The flexible pump coupler is a nylon "spider" insert, located between the pump and engine shaft. The alignment is very critical. Over a period of time, the coupler will harden and deteriorate. For a replacement flexible pump coupler, order part number 717-0891.





**WARNING: Never hit the pump shaft in any manner, as any blow will cause permanent damage to the pump.**

When replacing the flexible pump coupling, proceed as follows.

1. Place the coupling half onto the engine shaft. Make certain there is clearance between the coupling half and the engine. Tighten the set screw.
2. Mount the pump onto the coupling support bracket. Tighten securely.
3. Carefully slide coupling half onto pump shaft (make certain set screw is loose). Slide the key into place on the shaft.
4. Install the nylon "spider" insert into coupling half on the engine shaft.
5. Place the coupling shield in position on the hex bolts. Rotate the keyway on the pump shaft so it is toward the bottom.
6. Attach the coupling support bracket to the hex bolts, carefully sliding the coupling half over the "spider" insert. Secure coupling shield and coupling support bracket with lock washers and hex nuts. Tighten securely.
7. Adjust the two coupling halves (steel) so there is between .010" and .060" clearance between the two halves (at least the thickness of a matchbook cover, up to 1/16" maximum). See figure 12. Tighten the set screw in the coupling half on the pump shaft.

**NOTE:** Make certain proper clearance is obtained before tightening set screw.

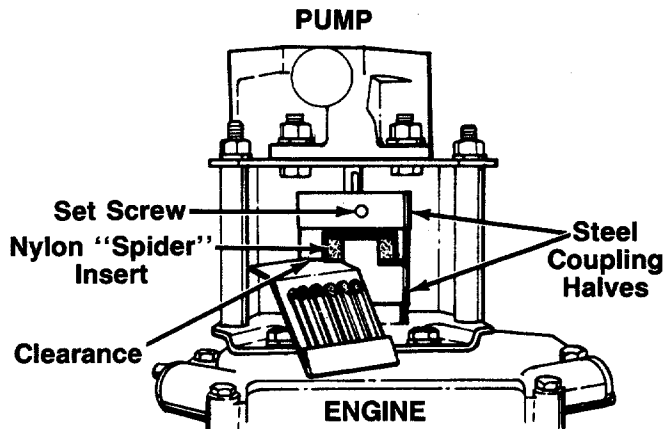


FIGURE 12.—Bottom View

### CARBURETOR ADJUSTMENT



**WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.**

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. Improper adjustment will cause stalling when splitting is under load, hard starting and higher fuel consumption.

Refer to the separate engine manual packed with your log splitter for carburetor adjustment information.

**NOTE: A DIRTY AIR CLEANER WILL CAUSE ENGINE TO RUN ROUGH. BE CERTAIN AIR CLEANER IS CLEAN AND ATTACHED TO THE CARBURETOR BEFORE ADJUSTING CARBURETOR. DO NOT MAKE UNNECESSARY ADJUSTMENTS. FACTORY SETTINGS ARE SATISFACTORY FOR MOST APPLICATIONS AND CONDITIONS.**

### TIRE PRESSURE

Check sidewall of tire for manufacturer's recommended maximum tire pressure. If this information does not appear on your tire, maximum tire pressure under any circumstances is 30 p.s.i. Equal pressure should be maintained on both tires.

### INSTALLATION OF TIRE TO RIM



**WARNING: The following procedure must be followed when removing or installing a tire to the rim.**

1. Be certain rim is clean and free of rust.
2. Lubricate both the tire and rim generously.
3. Never inflate to over 30 p.s.i. to seat beads. Excessive pressure when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

## OFF-SEASON STORAGE

To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Follow these instructions.

1. Drain the fuel tank. Start the engine, and let it run until the fuel lines and carburetor are empty.



**WARNING: DO NOT DRAIN FUEL WHILE SMOKING, OR IF NEAR AN OPEN FIRE.**

2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with fresh oil.
3. Protect the inside of the engine for storage as follows.

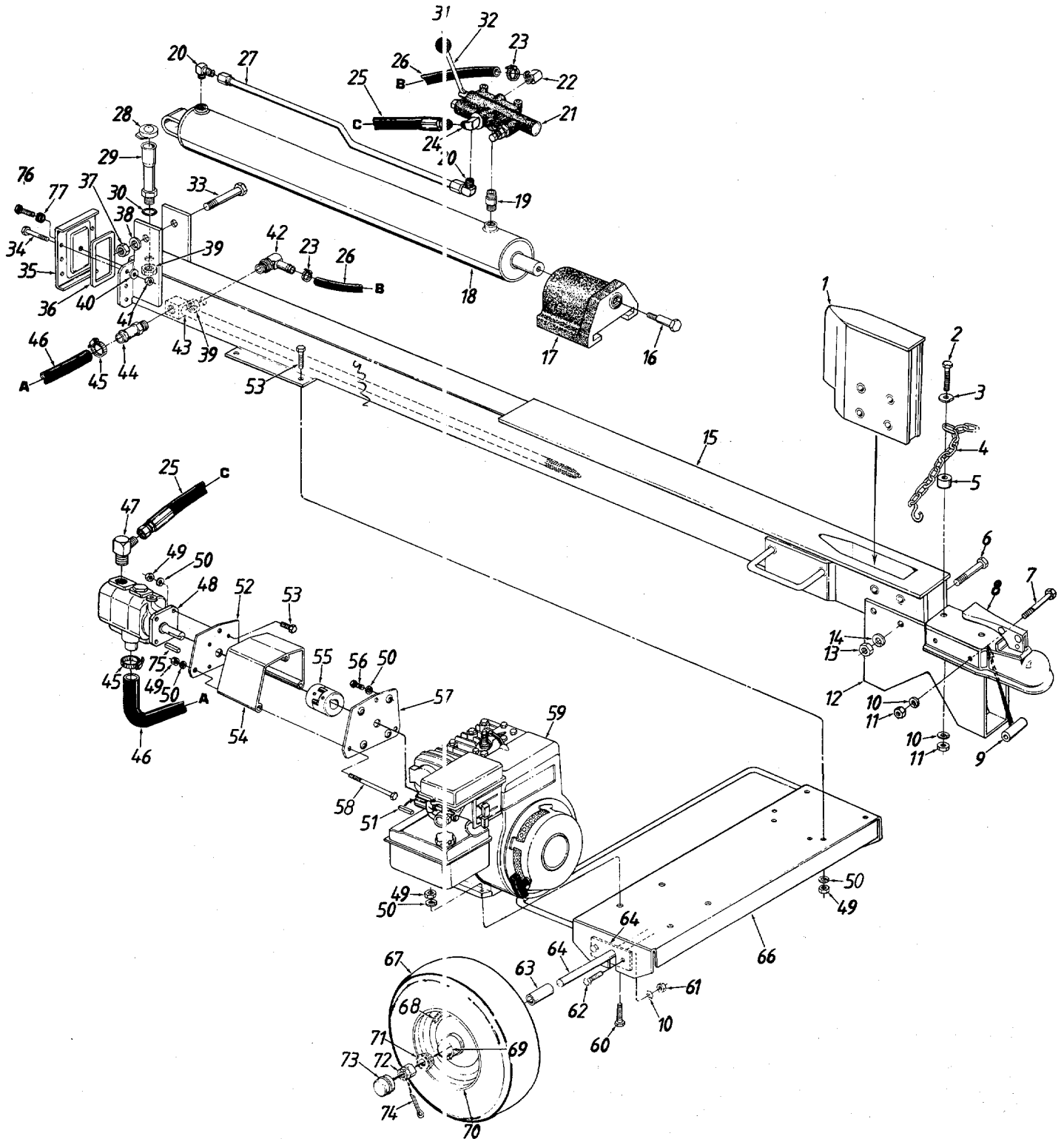
Remove spark plug, pour approximately ½ ounce (approximately one tablespoon) of engine oil into cylinder and crank slowly to distribute oil. Replace spark plug.

4. Clean the engine and the entire log splitter thoroughly.

5. Wipe unit with an oiled rag to prevent rust, especially wedge and beam.
6. Store unit in a clean, dry area.

**NOTE:** When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment by coating with a light oil or silicone.

## Model 610



# Model 610

## PARTS LIST FOR MODEL 610 LOG SPLITTER

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	781-0038		Wedge Ass'y.	39	712-0338		Hex Nut 1-1/16-12 Thd.
2	710-0520		Hex Bolt 3/8-16 x 1.5" Lg. (Gr. 5)	40	736-0275		Fl-Wash. .34" I.D. x .68" O.D.
3	736-0262		Fl-Wash. .375" I.D. x .87" O.D.	41	712-0158		Hex L-Nut 5/16-18 Thd.
4	713-0338		Chain—Tow Hitch	42	737-0259		90° Adapter 3/4" Hose
5	750-0507		Spacer .38" I.D. x .625" O.D.	43	781-0021		Strainer Tube Ass'y.
6	710-0298		Hex Bolt 5/8-18 x 3.5" Lg.	44	737-0191		Adapter 1" x 1-1/16-12 Thd.
7	710-3130		Hex Bolt 3/8-16 x 3.25" Lg. (Gr. 8)	45	726-0132		Hose Clamp 5/8"
8	727-0289		Tow Hitch Ass'y.	46	727-0429		Suction Hose 1" I.D.
9	750-0261		Spacer .375" I.D. x .625" O.D.	47	737-0265		90° Adapter
10	736-0169		L-Wash. 3/8" I.D.*	48	717-0936		Two Volume Pump (Incl. Ref. 75)
11	712-3017		Hex Nut 3/8-16 Thd. (Gr. 5)	49	712-0123		Hex Nut 5/16-24 Thd.*
12	781-0311		Beam Stand	50	736-0119		L-Wash. 5/16" I.D.*
13	712-0337		Hex Nut 5/8-18 Thd.*	51	714-0122		Sq. Key 3/16 x .75" Lg.
14	736-0158		L-Wash. 5/8" I.D.*	52	781-0097		Rear Coupling Support Bracket
15	781-0343	452	Oil Tank Ass'y.	53	710-0117		Hex Bolt 5/16-24 x 1.0" Lg.*
16	738-0601		Shld. Bolt .62" Dia. x .475"	54	719-0278		Coupling Shield
17	719-0269B		Pusher Plate	55	717-0891		Flexible Coupling
18	717-1346	638/N	Hydraulic Cylinder	56	710-0237		Coupling
19	737-0238		Pipe Nipple 1/2" NPT x 2" Lg.	57	781-0098		Hex Bolt 5/16-24 x .62" Lg.
20	737-0192		90° Solid Male Adapter	58	710-0363		Front Coupling Support Bracket
21	717-1347	N	Control Valve	59	—		Hex Bolt 5/16-24 x 4.0" Lg.
22	737-0153		Return Elbow	60	710-0409		Engine
23	726-0146		Adjustable Hose Clamp	61	712-0241		Hex Bolt 5/16-24 x 1.75" Lg.*
24	737-0171		90° Solid Male Adapter	62	710-0152		Hex Nut 3/8-24 Thd.*
25	727-0430		High Pressure Hydraulic Hose 29.5" Lg.	63	750-0442		Hex Bolt 3/8-24 x 1.0" Lg.*
26	727-0435		Return Hose 3/4" I.D. x 23 1/2" Lg.	64	781-0018		Spacer .75" I.D. x 1.12" O.D.
27	727-0307		Metal Pressure Tube	66	781-0033B		Axle Assembly
28	745-0174		Cap	67	734-1016		Engine Frame Ass'y.
29	781-0036		Filler Tube Ass'y.	68	734-0872		Wheel Ass'y. Comp.
30	721-0204		"O"-Ring .92" I.D.	69	734-0255		Tire Only
31	720-0231		Ball Knob	70	721-0168		Air Valve
32	747-0709		Control Handle	71	734-1017		Bearing Seal
33	710-1036		Hex Bolt 3/4-10 x 4.5" Lg.	72	741-0107		Rim Only
34	710-0442		Hex Bolt 5/16-18 x 1.5" Lg.*	73	712-0299		Roller Bearing w/Race
35	781-0361		Beam End Plate	74	734-0873		Hex Slotted Nut 3/4-16 Thd.
36	721-0203A		Gasket	75	714-0162		Hub Cap
37	712-0203		Hex Nut 3/4-10 Thd.*	76	714-3024		Cotter Pin 5/32" Dia.
38	736-0364		L-Wash. 3/4" I.D.*	77	710-0604		Hi-Pro Key 1/8" x 1/2" Lg.
							Hex TT-Tap Scr. 5/16-18 x .62" Lg.
							Gasket Washer 5/16" I.D. x 3/4" O.D.

\*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.



Specifications subject to change without notice or obligation.

NOTE: The engine is not under warranty by the log splitter manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

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## Trouble Shooting Guide

Trouble	Possible Cause(s)	Corrective Action
Engine fails to start	<ol style="list-style-type: none"> <li>1. Fuel tank empty, or stale fuel.</li> <li>2. Blocked fuel line.</li> <li>3. Spark plug wire disconnected.</li> <li>4. Faulty spark plug.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill tank with clean, fresh gasoline.</li> <li>2. Clean fuel line.</li> <li>3. Connect wire to spark plug.</li> <li>4. Clean, adjust gap or replace.</li> </ol>
Engine runs erratic	<ol style="list-style-type: none"> <li>1. Unit running on CHOKE.</li> <li>2. Spark plug wire loose.</li> <li>3. Blocked fuel line or stale fuel.</li> <li>4. Water or dirt in fuel system.</li> <li>5. Dirty air cleaner.</li> <li>6. Carburetor out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Move choke lever to OFF position.</li> <li>2. Connect and tighten spark plug wire.</li> <li>3. Clean fuel line; fill tank with clean fresh gasoline.</li> <li>4. Drain fuel tank. Refill with fresh fuel.</li> <li>5. Clean air cleaner as instructed in separate engine manual.</li> <li>6. Adjust carburetor (see Carburetor Adjustment in separate engine manual).</li> </ol>
Engine overheats	<ol style="list-style-type: none"> <li>1. Engine oil level low.</li> <li>2. Air flow restricted.</li> <li>3. Carburetor not adjusted properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill crankcase with proper oil.</li> <li>2. Remove blower housing and clean as instructed in separate engine manual.</li> <li>3. Adjust carburetor (see Carburetor Adjustment in separate engine manual).</li> </ol>
Will not split logs	Reservoir fluid level low.	Check and fill reservoir tank as instructed in Operation section of this manual.
Leaking cylinder	<ol style="list-style-type: none"> <li>1. Broken seals</li> <li>2. Scored cylinder.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace seals.*</li> <li>2. Replace cylinder.*</li> </ol>

**NOTE: For repairs beyond the minor adjustments listed above, please contact your nearest authorized service dealer.**

**\*Should be performed by an authorized service dealer only.**